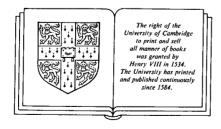
The archaeology of political structure

Settlement analysis in a Classic Maya polity



Cambridge University Press

Cambridge

New York New Rochelle Melbourne Sydney

Published by the Press Syndicate of the University of Cambridge The Pitt Building, Trumpington Street, Cambridge CB2 1RP 32 East 57th Street, New York, NY 10022, USA 10 Stamford Road, Oakleigh, Melbourne 3166, Australia

© Cambridge University Press 1989

First published 1989

Printed in Great Britain by the University Press, Cambridge

British Library cataloguing in publication data

Montmollin, Olivier de
The archaeology of political structure:
settlement analysis in a classic Maya polity—
(New studies in archaeology)
1. Mexico. Chiapos (State). Maya settlements.
Archaeological investigation
I. Title II. Series
972'.7501

Library of Congress cataloguing in publication data

De Montmollin, Olivier.

The archaeology of political structure:

settlement analysis in a classic Maya polity/Olivier de Montmollin.

p. cm. (New studies in archaeology)

Bibliography.

ISBN 0 521 36232 6

- 1. Mayas-Politics and government. 2. Mayas-Antiquities.
- 3. Land settlement patterns. Prehistoric-Mexico-Rosario Valley Region.
- 4. Indians of Mexico-Rosario Valley Region-Politics and government.
- 5. Indians of Mexico-Rosario Valley Region-Antiquities.
- 6. Rosario Valley Region (Mexico)-Antiquities.
- 7. Mexico-Antiquities. I. Title.

F1435.3.P7D4 1989

972'.32-dc 19 88-16163 CIP

ISBN 0 521 36232 6

List of figures ix List of tables xi Preface xiii

1 Studying ancient complex polities 1

2 Thinking about Maya political structure 11

Societal typologies 11

Bundled continua of variation 16

Segmentary and unitary polities 19

Pyramidal and hierarchical regimes 22

Variation in political stratification 23

Mechanical and organic solidarity 25

Segmenting and non-segmenting organizations 27

Research questions 29

Models, analogies, and contexts of discovery 32

3 The Rosario polity 40

4 Linking Maya politics and settlement 50

Bridging arguments for ancient complex polities 50

Survey setting and fieldwork methods 54

Contemporaneity 55

Equifinality 67

Scale of coverage 70

Preservation and visibility 71

Form to function 74

5 Centralization 76

Analytical tools 76

Territorial subdivisions 76

Functional classifications of buildings 76

Site classification 77

Political settlement hierarchy 78

Site size classifications 82

Settlement size and political importance 85

Contents viii

Forced settlement and centralization 87
Paramount and cross-level forced settlement 96
Tribute flow and centralization 102
Tribute drawing and tribute imposition 104

6 Differentiation and integration 116

Differentiation 116

Area 118

Population density and environmental composition 120

Tributary Base Size (TBS) 128

Forced settlement centralization 129

Tribute drawing centralization 130

Tribute imposition centralization 131

Integration 134

Segmentary versus unitary structure 138

7 Political regimes and microcosms 140

Pyramidal versus hierarchical regimes 140

Information-processing efficiency 153

Horizontal political specialization 161

Tenam Rosario as a political microcosm 162

8 Political stratification patterns 173

Detecting political stratification 173

Group versus individual stratification 176

Ascription versus achievement 184

Contenders for office 188

Elite forced settlement 191

9 Mechanical versus organic solidarity 197

10 Segmenting versus non-segmenting organization 206

Social statics and dynamics 206

Development cycles 209

The Rosario polity and the Maya collapse 212

11 Archaeological study of Maya polities 217

Conceptualizing an ancient polity 217

A political portrait of the Rosario polity 218

Middle range studies 234

The web of research 240

Scales of analysis 244

Conclusions 249

Notes 254

References 266

Index 284

1	Location of the Upper Grijalva Tributaries 41					
2	Classic polities in the northern Upper Tributaries 42					
3	Chronology 43					
4	Rosario polity: Late/Terminal Classic settlement 44					
5	Rosario polity: districts and Political Hierarchy 45					
6	Settlement scales 53					
7	El Rosario (RV163) 61					
8	Tenam Rosario 79					
9	Tenam Rosario: civic-ceremonial zone 80					
10	RV30/37 81					
11	RV200 81					
12	Sizes of PH-ranked sites – polity 83					
13	Sizes of PH-ranked sites – upper section 84					
14	Sizes of PH-ranked sites – lower section 84					
15	Centralization indices 98					
16a	Paramount forced settlement 99					
16b	Key for paramount indices 99					
17	PH3/PH4 and PH2/PH3-PH4 continuum 101					
18	Paramount tribute drawing (TDI) 106					
19a	Paramount tribute imposition (TLI-1) 113					
19b	Paramount tribute imposition (TLI-2) 113					
20a	District areas 119					
20b	Key for aggregate indices 119					
21	Proportion of Valley Floor (vf-vfe) area to total area 123					
22	Population densities 124					
23	Population densities minus Upper Hillside 125					
24	Hectares of Valley Floor (vf-vfe) per dwelling 127					
25	Tribute Base Size 129					
26	Aggregate forced settlement 130					
27	Aggregate tribute drawing (TDI) 131					
28a	Aggregate tribute imposition (TLI-1) 133					
28b	Aggregate tribute imposition (TLI-2) 133					
29	Sizes of sites associated with centers – polity 142					
30	Sizes of sites associated with centers – upper section 143					
31	Sizes of sites associated with centers - lower section 143					

List of figures x

32	Civic-ceremonial	construction	volume a	it centers – j	2011ty 14	4	
33	Civic-ceremonial	construction	volume a	it centers – i	ipper sect	ion	144
34	Civic-ceremonial	construction	volume a	it centers – l	ower sect	ion	145

- 35 Civic-ceremonial construction volume in plazas polity 146
- 36 Civic-ceremonial construction volume in plazas upper section 146
- 37 Civic-ceremonial construction volume in plazas lower section 146
- 38 Plaza polygons 155
- 39 Distribution of civic-ceremonial buildings 156
- 40a Tenam Rosario disembedded from its hinterland hierarchy 165
- 40b Tenam Rosario embedded in its hinterland hierarchy 165
 - 41 El Rosario: Section A 180
 - 42 Tenam Rosario: Section E 181
- 43 RV194 182
- 44 RV196 183
- 45 Architectural correlates of domestic cycle phases 185
- 46 Elite paramount forced settlement 192
- 47a Resource Units per dwelling with two RU per hectare of Valley Floor (vf) 20.
- 47b Resource Units per dwelling with four RU per hectare of Valley Floor (vf) 201
- 48 Hectares of Valley Floor (vf-vfe) per dwelling minus Upper Hillside 202
- 49 The web of research 240
- 50 Perspectives on settlement 245

- 1 Aligned continua of variation 17
- 2 Political Hierarchy (PH) 79
- 3 Proportion of population at different PH levels 97
- 4 Forced settlement at individual PH3 and PH4 centers and individual pyramidplazas 100
- 5 Tribute Drawing Index (TDI) values 105
- 6 Tribute Base Size (TBS) values 110
- 7 Tribute Load Index (TLI) values 112
- 8 Implications of political or economic determinants for comparative population densities 121
- 9 Distribution of environmental zones across districts 122
- 10 Summary of the differentiation subcontinuum 134
- 11 Size and complexity rankings (polity) 145
- 12a Polity SDI versus PH 150
- 12b Upper section SDI versus PH 150
- 12c Lower section SDI versus PH 150
- 13a Polity SDI versus VH 151
- 13b Upper section SDI versus VH 151
- 13c Lower section SDI versus VH 151
- 14a Polity (without Tenam Rosario) plaza SDI versus VH 152
- 14b Upper section plaza SDI versus VH 152
- 14c Lower section plaza SDI versus VH 152
- 14d Tenam Rosario plaza SDI versus VH 153
- 15 Number of dwellings per pyramid-plaza, ballcourt, and range building 159
- 16 Polity SDI versus CH 160
- 17 Presence/absence of horizontal political replication 161
- 18 Comparison of vertical and horizontal political specialization within pockets 162
- 19 Upper Tributaries regional centers 170
- 20 Dwellings per housegroup averages 187
- 21 Numbers of political offices, contenders, and subjects 189
- 22 Ratios of contenders, subjects, and political offices 190
- 23 Comparison of Mesoamerican capitals with political microcosms 230

Studying ancient complex polities

The study of political structure in ancient complex polities exercises a powerful attraction on archaeologists working in Mesoamerica and many other parts of the world. Intense interest and energy are invested in trying to describe and understand complex polities which are ancient or traditional in the sense that they often predate and always differ from modern European nation-states (Southall 1965; Giddens 1985). Before proceeding with a study of politics in one or more ancient complex polities, pausing to look at the general reasons for the attraction of such studies proves instructive since these reasons directly affect problem orientation, theory, and methodology. Reasons for studying ancient complex polities revolve around four broad themes: the evocation of great questions (origins of the state, complexity, civilization); the use of data and concepts from political anthropology; the problems encountered in constructing analogies (models); and the vigorous effort and reasoning required for constructing bridging arguments to link theoretical concepts and archaeological data. A number of approaches may be adopted with reference to these four broad themes. My own approach is one of bias in favor of anthropological archaeology which combines a comparative search for general principles with an (intellectual) respect for diversity in political structure and behavior. Such an approach lies towards the relatively more fruitful middle ground of a spectrum. At one end are the highly generalizing approaches in the archaeology of ancient complex societies which deal in political universals and sweeping conclusions about the human condition. At the other end of the spectrum are the highly particularistic approaches which refuse to deal with any comparative generalization and limit themselves to descriptions of single ancient complex polities or cultures.

The first attraction of ancient complex polities as a subject of study is that they provide substantive case material for commenting on some of the seemingly evergreen great questions in anthropology. Such great questions concern the origins of inequality (ranking), the origins of the state, the origins of complexity, the origins of civilization, and the rise and fall of cultures (Service 1975; Steward 1949; Wright 1977, 1986; Wolf 1982; Renfrew and Cherry eds. 1986). Many of these questions are rooted in earlier nineteenth-century concerns with progress and social evolution. Continued concern with these issues on the part of many archaeologists may reflect either academic inertia, at worst, or a conscious desire to continue in an academic tradition, at best. Either way, these concerns are in clear reciprocal relationship with inertia in non-academic political and social thinking on these

matters. This consists of the teleological ethnocentrism concerning civilization and development found in nations of the developed world or the teleological dependency thinking concerning the same issues found in the developing world. But the great questions also endure in and around archaeology because some of the subjects they touch on have (often unacknowledged) links to sociopolitical issues of more currently fashionable academic interest. Such issues concern the individual and totalitarianism, social justice, inequalities among nations and classes, and so forth. They are the issues that mobilize radical anti-evolutionist approaches – critical Marxism, post-structuralism, world systems (core-periphery) models, and structuration theory from sociology (Friedman and Rowlands 1977; Miller and Tilley eds. 1984; Spriggs ed. 1984; Hodder 1986; Giddens 1984, 1985).

Thus, on the one hand the great questions can be attractive because they lend the weight of academic precedent to the archaeological enterprise concerning ancient complex polities. On the other hand, the great questions, slightly reformatted, are attractive because they seem to lend current, radical, and wide extradisciplinary relevance to archaeological studies of power and politics in the past. Whatever the underlying reasons, a desire to resolve the great questions as an impetus for studies of ancient complex polities is open to challenge. For one thing, the great questions themselves need much more rethinking and analytical breaking down than they have received. For example, the primary focus on origins in so many of the great questions is rooted in the evolutionary idea of unfolding models of change (Giddens 1984). That a polity's later development is implicit in and must be understood in its earliest form is a doubtful idea which introduces an inappropriately high degree of determinism into models for human history. Ancient complex polities need not be understood only in terms of their remote or pristine origins. The interest and worth of studies of ancient complex polities cannot be measured in terms of their degree of temporal and spatial proximity to the pristine origins of political complexity. Rather, the quality of evidence and the quality of the thinking applied to that evidence are what underlies a study's interest and worth. It is for these reasons that studying late prehispanic Inca political structure and organization in the Central Andes is much more interesting than studying pristine Andean state formation in the Early Intermediate Period. Similarly, studies of the operation of the late prehispanic Aztec polity in Central Mexico evoke a much richer and more interesting set of political puzzles than any studies of the pristine origins of the Mesoamerican state during the Formative Period. Finally, the same applies to Maya politics and settlement which are of interest here. The relatively welldocumented and vigorously thought-about workings of complex Classic Maya polities are more interesting to grapple with than the dimly perceived and conceptualized Formative origins of Maya political complexity.

It is also mistaken to adhere closely to the great questions if these lead to the idea that ancient complex polities can only be studied in terms of their relentless transformation from one developmental stage to another. This idea is part of the tyranny of process in which archaeology is viewed as an exclusively diachronic discipline whose sole aim is to chart and explain changes (usually major structural

changes in the case of ancient complex polities). As I hope to show through a study of Maya politics and settlement, it is at least as interesting and perhaps more intellectually challenging to construct a study of the more stable structural aspects of ancient complex polities.

Resolving the great questions as an impetus for constructing studies of ancient complex polities is also questionable in the sense that it leads to austere or overgeneralized problem orientation. The simplistic questions which are asked fail to do justice to the richness of available case materials or to the complexity of the puzzles that these present. In fact, a focus on great questions by archaeologists or anthropologists is unnecessarily passive since the great questions are in large part received from outside their disciplines. That is, in their most abstract forms the great questions tend to revolve around general philosophical issues of interest to Western intellectuals and educated laypersons, issues concerning free will and the individual and society. The practice and subject matter of archaeology-anthropology suggests that a passive approach to problem orientation which takes all of its cues from such general philosophical issues is ethnocentric to the point of becoming uninteresting. The non-anthropological discussions lack cross-cultural perspective and rely on essentialist assertions about human nature or else reductionist studies about human capability (e.g., those relating decision-making to brain capacity). On the other hand, the anthropological discipline has to deal with a bewildering diversity of trajectories and political arrangements in human history. These cannot be captured effectively or understood by the broad generalizations about human behavior and institutions found in the great questions. Concerning ancient complex polities, the basis for anthropological archaeology's greatest independent contributions is its ability to document variability in political arrangements, including forms no longer available for study by non-archaeological means.

A second, more positively attractive reason for anthropological archaeologists to study ancient complex polities is that it requires them to delve into political anthropology, one of anthropology's most fertile and interesting subfields. Still relatively underappreciated by archaeologists, political anthropology incorporates within itself practically the full range of social science interpretive frameworks -Marxism, transactional or action theory, structural-functionalism, structuralism, symbolics/semiotics, world systems, cultural ecology - and applies these to extremely varied case material. Compared to a study formulated in terms of the great questions, an anthropological-archaeological study of ancient complex polities which draws on political anthropology has two advantages. First, such a study can better deal with differences as opposed to similarities in political arrangements. Second, it draws on a subdiscipline which is unparalleled in confronting theoretical generalizations about politics, with the widest possible range of documented political structures (institutions) and organizations (behaviors). From my own perspective, these are key advantages for the study of Maya politics where overgeneralization or extreme particularism present clear dangers.

Whether one takes generalizing (great question) or more particularizing (political anthropology) approaches to politics, a third reason that archaeological study of

ancient complex polities is appealing is that it raises technically interesting problems concerning analogy (Chapter 2). Analogies are equated here with models or conceptual constructs (of varying complexity) to be confronted against archaeological evidence. Beyond general philosophical aspects (Wylie 1985), the technical problems concern practical aspects of how analogical reasoning can be used to best effect in constructing an anthropological—archaeological argument. Criteria for construction and then application of analogies have to be considered and justified.

The selection and defence of different kinds of substantive (anthropological or historical) analogies presents interesting problems. Substantive analogies may vary widely in their degree of abstraction. At one extreme are relatively specific analogies incorporating single political cases (or institutions). When applied in a direct-historical framework (Steward 1942), such analogies are part of a particularistic approach. Towards the middle of the range are analogies which include composites of political cases informed by moderately abstract political principles. Towards the generalizing extreme of the range are those analogies containing theoretically quite abstract general principles (often only loosely related to either politics or anthropology).

Often ignored as a problem is the justification required for what can be called extradisciplinary theoretical analogies. These are models brought in from non-archaeological or non-anthropological theories. Applications to archaeological analysis of principles from locational geography, information theory, microeconomics, literary criticism, ecology, semiotics, and so forth all require that their substantive relevance to the study of ancient complex polities be defended and not just asserted (Charlton 1981: 130).

When using substantive analogies, archaeologists often push the theoretical component of the case material far into the background. The case material, ethnographic or historical description and interpretation, is treated as a source of relatively raw data. Given the many possibilities and ambiguities associated with the anthropological study of complex polities, to use substantive ethnographic (or historical) interpretive reports as raw data is to assume wrongly that the relation between theory and data is less problematic for ethnographers (or historians) than it is for archaeologists. If one wants to construct and use these kinds of substantive analogies, it makes most sense to inform oneself about the theoretical and methodological issues (and uncertainties) surrounding the ethnographic or historical research that produced the material from which the analogy is drawn. Needless to say, this imposes huge extra efforts on the archaeologist. But these efforts must be interesting for anthropological archaeologists since they go so close to the core of anthropological subject matter.

At the abstractly theoretical end of the spectrum, over-reductionism in constructing analogies becomes a difficulty to be wrestled with. Reductionism problems are especially clear in the use of biological analogies, but not limited to these, as reductionism can become problematic in any broadly generalizing approach (Marxist, structuralist, cultural evolutionist, world-system, or peer polity).

For anthropological archaeology, less generalizing approaches at a more middle range of abstraction are preferable since they stress the institutional variability of political arrangements in human history (examples are structural functionalist, symbolic, or Weberian approaches). Such middle range approaches better avoid the main flaws of reductionism which are triteness and overemphasis on apparent similarities between cases. The contrast between the two classes of approaches is akin to the familiar one between formalism in economic anthropology which emphasizes universals of economic behavior (Halpernin 1985) and substantivism which stresses the variable institutional matrix of the economy (Halpernin 1984).

A focus on the technical problems of constructing analogies (models) may seem less aesthetically pleasing than a focus on well-turned, finished analogies because it interposes considerable legwork before resounding conclusions can be arrived at. However, for those archaeologists who have an intellectual curiosity about how studies are put together rather than a more utilitarian interest in the end product or formal conclusions of such studies, such problems must be of central interest. The formulation of appropriate variables for a study of politics in ancient complex polities is difficult and needs careful thought. Rather than sketching another model for the Maya, the subsequent study of Maya politics and settlement gives extended attention to the conceptualization of political structure and organization (Chapter 2). To advance this kind of enterprise, general programmatic statements in political anthropology provide a helpful guide, confronting high-flown theoretical generalization about political behavior with the particulars of detailed cross-cultural institutional and behavioral case studies (Easton 1959; Winckler 1969; Cohen 1979; Vincent 1978; Goody 1966). On a more specific level, theoretically well-turned case studies in political anthropology are useful for the same reasons (references in Chapter 2).

A fourth and final source of attraction to the study of ancient complex polities consists of the archaeologically fascinating methodological problems of measuring variables on the archaeological record. Ideally, from an anthropological-archaeological viewpoint, such methodological problems should loom into view most clearly once anthropological problem orientations have been set and theoretical models have been formulated. Less ideally, from a more narrowly archaeological position of strict empiricism, focused primarily on the archaeological record and its properties, such methodological problems may precede and altogether swamp theoretical problems. Implicitly following the path of least resistance, most of the work on methodological bridging arguments (or middle range theory - Binford 1977) has been carried out with reference to less complex societies. Consequently, the construction of bridging arguments for theoretical issues concerning ancient complex polities remains a wide-open field (Sabloff 1983). My study of Maya politics and settlement is closely connected to this methodological theme. It explores various ways in which sociopolitical variables can be documented in a complex multiscale archaeological settlement record.

Opposed options for developing bridging arguments concerning ancient complex polities involve differing degrees of generalization. The more generalizing options

seek to develop relatively invariant rules for relating political (or other) behavior to archaeological remains, either through cross-cultural analysis (Johnson 1978, 1982; Feinman and Neitzel 1984) or through actualistic studies (Hayden and Cannon 1984). A more particularizing option, adopted here, is one which seeks to treat each case on its own merits, attempting to justify assumptions about the relation between political behavior and material culture by drawing on direct-historical materials to delimit the range of possibilities. As before, with reference to the dangers of reductionism in model building, the contrast between generalizing and particularizing approaches to constructing bridging arguments is akin to that between formalist and substantivist positions in economic anthropology.

To sum up the arguments so far, there are four general reasons why a study of political structure in ancient complex polities proves interesting and ultimately worthwhile. On a substantive and general-interest plane, the first two reasons concern the widely captivating great questions that can be addressed by looking at such polities, and the political anthropology-aided ability to document a wide variety of political regimes. The last two reasons are of more technical interest to specialist practitioners. These reasons concern the anthropologically interesting conceptual difficulties associated with constructing analogies (or models) and the archaeologically interesting methodological challenge of relating models to an archaeological record.

The last two reasons are of particular interest to archaeologists who keep an open mind about their craft and like to think that the varied means of formulating a question and arriving at an answer are worth discussing and exploring. One way of examining such theoretical and methodological issues for ancient social and political systems is to survey the field from a relatively high vantage-point, with passing reference to a variety of cases as brief illustration for the points made (Johnson 1977; Wright 1977; Ammerman 1981; Trigger 1974; Haas 1981, 1982; Hodder 1982:ch. 6; Renfrew 1986). A second way of approaching many of the same issues is to construct a sustained piece of substantive archaeological research and give detailed attention to the conceptual and methodological problems that arise at each stage of the enterprise (Cowgill et al. 1984). If the second kind of approach is properly handled, with a measure of self-criticism and an honest exposure of choices, ambiguities, and lacunae in the research process, the general conceptual and methodological problems faced by any archaeologist attempting to understand an ancient complex polity come into view quite clearly, even though filtered through the particular mesh of the specific case examined. The efforts required to shape theoretical questions and to construct relevant analogies are best appreciated in this kind of approach because of the clear grounding in a specific subject matter and research tradition and the need to reconcile this with more general concepts from anthropology (or other disciplines). Also best appreciated in this kind of approach are the practical difficulties and ambiguities associated with confronting ideas and evidence, because of the sustained attention to detail. In contrast, such appreciations are not available generally in a high-vantage survey whose hit-andrun nature militates against critically understanding the full complexity of each example that hurtles past the reader.

In light of these considerations, I have adopted the second approach, using a case study in Maya settlement archaeology to explore and develop some more widely relevant conceptual and methodological themes concerning ancient complex polities. The case study is based on a settlement survey carried out in the Rosario Valley, within the Upper Grijalva Tributaries of Chiapas, Mexico (Figures 1-2; de Montmollin 1985a, 1985b, 1987, n.d.a). In brief, the analysis of settlement patterns characterizes the political structure and organization of the Rosario polity which occupied the valley in the Late/Terminal Classic Period, AD 700-950 (Figure 3). The term *polity* designates a broadly autonomous political entity (Renfrew 1986: 2), with complex state-like political structure. Further details concerning the Rosario polity are provided subsequently (Chapter 3), followed by detailed settlement analysis (Chapters 5-10).

Before turning to the Rosario polity, I continue in a general vein with several further questions concerning problem orientation in studies of ancient political structure. These questions are framed in terms of Maya (and Mesoamerican) studies, but clearly appear in one form or another in many studies of politics and settlement in ancient complex polities. All attempts to formulate archaeological (settlement) studies of Maya political structure immediately run into several interesting conceptual difficulties and choices relating to problem formulation. These concern: analytical scale and level of synthetic generalization; conceptualization of the relation between environmental, economic, settlement, and political variables; and use of bundled continua of variation as opposed to societal typologies in order to conceptualize polities.

A difficult conceptual choice concerns the analytical scale and level of synthetic generalization at which political structure is best characterized. One approach to formulating Lowland Maya political structure has characterized it synthetically, using a very broad brush indeed. This approach deals with Maya political structure in general, as it existed throughout the entire Maya culture (linguistic) area. The characteristics of Maya political structure are reconstructed synthetically by combining scraps of evidence from a variety of sites and localities, on the assumption that political arrangements were broadly similar throughout the culture area. More often than not, the high level of generalization has been required in order to compare Maya to Central Mexican Highland political structure, viewed in an equally synthetic fashion (Sanders and Price 1968; Coe 1961; Wolf 1959). Such an approach has provided valuable comparative insights into the peculiarities of Maya developments in a Mesoamerican context, with the contrasting environments of the Mesoamerican Lowlands and Highlands often playing a large role in the interpretations.

Another approach has given much closer (often particularistic) attention to developments in Maya civilization, largely dispensing with comparisons to the Mesoamerican Highlands, but occasionally bringing into view contrasts among the regional subdivisions within the Maya culture area (Culbert ed. 1973; Adams ed. 1977; Ashmore ed. 1981; Sabloff and Andrews eds. 1986). While it uses a finer brush, the second approach resembles the first in its synthetic quality and use of ideal types. My own study of Maya settlement and politics is similar to this in the

sense that the analytical scale has been shifted downward. But compared to the second approach, the analytical scale is even more tightly defined as an individual Maya polity. Additionally, a focus on analysis of the polity's internal variability contrasts sharply with the synthetic reconstructions of political structure that prevail in Maya studies. Such synthetic reconstructions occur at any one of several analytical scales: the whole culture area; a (large) subdivision of the area (Ashmore ed. 1981: fig. 2.1); and a single site (possibly with its sustaining area). Interestingly, the polity scale of analysis is touched on relatively rarely in a systematic way. The non-synthetic single-polity approach which I advocate and use is designed to contribute to an eventual shift in larger scale research emphasis away from synthetic (or patchwork) ideal-type reconstructions. The aim is to move towards a more analytical or variation-sensitive controlled comparison (Eggan 1954) among Maya polities, or indeed among political entities at both larger and smaller scales (entities such as districts within polities or alliances of several polities). Therefore, the approach which I favor is focused relatively specifically in its analytical scale, but not ultimately non-comparative (in a nominalist sense).

A second conceptual difficulty in formulating a study of Maya political structure concerns whether or not to use a chain of reasoning which specifies that environment determines subsistence which determines settlement which determines political structure. Many discussions of the Maya have relied implicitly on such an ecologically determinist form of reasoning, recognizable as part of the mainstream cultural-ecological approach (Blanton 1983). In compressed (and idealized) form, the sequence of arguments runs as follows. One begins by determining the demographic and productive possibilities of the reconstituted ancient environment at a given level of technology (usually with estimations of carrying capacities). From this, one determines the likely nature of the settlement system, almost always by inferring least-effort or cost-benefit logic among the individual settlers. Finally, one deduces from the causally prior environmental and settlement factors the size, complexity, and integration permitted the political system. For brevity, this chain of reasoning can be referred to as the environmental to political chain of reasoning. Variations on the environmental to political chain of reasoning have underlain many broad scale and synthetic characterizations of Maya political structure, its developing complexity, its ongoing operation, and its tendency to collapse. An early and still striking example is one side of the polemic about whether or not complex civilization could develop and endure in a tropicalforest setting, the idea that Maya civilization was doomed to failure because of the deficiencies of its environmental setting (Meggers 1954). Several discussions concerning social stratification and urbanism have used the same chain of reasoning (Coe 1961; Kurjack 1974; Webb 1973; Haviland 1966a, 1968; Vogt 1964a; Sanders and Price 1968).

An a priori reason for mistrusting the environmental to political chain of reasoning is that it has a virtually built-in tendency to attribute disproportionate explanatory importance to the environmental head of the chain. Following from this, a privileged place is given to environmental, demographic, and agronomic

questions. This severely skews the problem orientation and prejudges the relative importance of environmental, demographic, agronomic, settlement, political, and other variables in the operation of ancient complex societies.

Viewed in terms of methodology, the environmental to political chain of reasoning clearly moulds itself to schemes which assign increasing levels of difficulty for archaeological interpretation as one moves up a ladder of inference leaning against a layer cake of environmental, subsistence, sociopolitical, and ideological spheres (Hawkes 1954). However one may feel about the validity of such schemes, it is ironic that due to the trends of Maya research history and the qualities of the Maya archaeological record, we probably have fuller archaeological evidence bearing on the more difficult rungs of the ladder. More poorly supported speculation is required for reconstructing Maya subsistence and economy than is required for reconstructing aspects of Maya political structure and even ideology. Reinforcing this is the possibility of supplementing archaeological evidence with epigraphic and ethnohistoric sources, which provide lines of evidence that generally bear more closely and usefully on ideological and sociopolitical matters than they do on questions of subsistence and environment. Thus, using the environmental to political chain of reasoning in this case fails to do practical justice to the nature and the relative strengths of the evidence. But the issue goes beyond just playing or not playing to the strengths of the evidence. Even if one were to concede the theoretical ground to some form of techno-environmental determinism and grant the validity of operating with such a chain of independent and dependent variables, dependent variables still have to be as fully studied as independent variables. Because this has not been done, political structure has received somewhat cursory treatment, at least in part because of implicit or explicit placement at the dependent end of the environmental to political chain of reasoning.

In light of this, while developing a problem orientation, I have chosen to avoid most of the tactics associated with the environmental to political chain of reasoning. Instead, I focus first and foremost on political problems and variables, as they can be understood through a study of the settlement record. For a Classic Maya polity (and for many other ancient complex polities), a reasonable supposition is that political structure and organization powerfully determines settlement patterning, rather than the other way around. This supposition will be discussed subsequently (Chapter 5). If one accepts it for the moment, its implication is that political themes cannot be addressed as a simple by-product of a study of environment acting on subsistence acting on settlement.

A third choice in developing a problem orientation concerns whether to use societal typologies or continua of variation to conceptualize polities. In brief, my argument is that the societal typologies often used in Maya and Mesoamerican studies are best avoided. This is not for reasons of particularism, but because of the clumsiness of the typological approach for characterizing polities and studying political questions. The alternative approach selected here uses bundled continua of variation. This involves evaluating a polity in terms of the positions it occupies along a series of thematically related continua of variation (Easton 1959). Continua